

CARDIAC AND CARDIOVASCULAR TECHNOLOGY

PAPER-I

APPLIED ANATOMY, PHYSIOLOGY AND PHARMACOLOGY RELATED TO

CARDIOVASCULAR TECHNOLOGY

Time: 3 Hours

Max Marks: 80

Note: Draw diagrams whenever necessary.

Write essay on any TWO of the following questions:

2 X 10 = 20

1. Classify diuretics: discuss in detail about:
a) Frusemide b) Hydrochlorothiazide c) Spironolactone d) Amiloride
2. Briefly describe morphology of right ventricle. Draw a neat diagram to show its interior.
3. Cardiac cycle and excitation-contraction coupling.

Write a short note on any FIVE of the following:

5 X 6 = 30

4. Draw a neatly labelled diagram of coronary arteries with their branches and explain briefly the blood supply of heart.
5. Mechanism of cardiac muscle contraction.
6. Classify drugs used in management of essential hypertension.
7. Coagulation cascade and add a note on laboratory assessment of clotting factor deficiency.
8. Add a note on Intra-arterial Thrombolysis.
9. Blood transfusion reactions.

Write briefly on the following:

10 X 3 = 30

10. Indications for Haemodialysis.
11. Extend PTCA. What is primary PTCA?
12. What is Starling's law of the heart?
13. Labetalol, classify the drug and add a note on indication & its uses.
14. Criteria for left ventricular Hypertrophy.
15. Constrictive pericarditis- Echo findings.
16. Define Radioactive isotope.
17. Tirofiban uses and complications.
18. Fick's principle.
19. Oxygen dissociation curve.
